Remarks

In view of the foregoing amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

This submission is accompanied by a petition for a three-month extension of time and a Request for Continued Examination ("RCE"). The fees for the extension of time and RCE should be charged to deposit account 14-1138. Any overpayment or underpayment should be credited/charged to this same account.

Claim 1 has been amended to recite that the inorganic phosphate is "selected from ammonium phosphate, ammonium polyphosphate and ammonium pyrophosphate" and to recite that the composition "is essentially free of charring agents which together with said inorganic phosphate provide intumescence." Descriptive support for the former is provided at page 9, lines 5-9, of the specification; and descriptive support for the latter is provided at page 3, lines 28-31, of the specification. In particular, the disclosure at page 3, lines 28-31, teaches that the invention is based in part on the absence of charring agents to enable, with the other claimed features, a composition that has improved mechanical strength and dimensional stability in the case of a fire. Therefore, no new matter has been introduced by these amendments.

Claim 18 has been cancelled without prejudice. Claims 1, 3, 5-17, 19-29, and 33-37 remain pending and under examination.

As explained in the background section of the present application, the mechanical strength and dimensional stability of polymer articles such as cable coatings and fire barrier articles such as door seals is critical in the event of a fire to inhibit spread of the fire and maintain building services such as communications and electricity. The maintenance of these services is, of course, very important to enable safe building evacuation and fire fighting. As described in the Examples of the present application, the present invention achieves these significant objectives, and does so using formulations that are novel and non-obvious for the reasons addressed below.

The objection to claim 18, recited on page 3 of the office action, is rendered moot by the cancellation of this claim. This objection should therefore be withdrawn.

The rejection of claims 1, 3, 5-18, 27-29, and 33-37 under 35 U.S.C. § 103(a) for obviousness over U.S. Patent No. 6,433,049 to Romenesko *et al.* ("Romenesko") in view of U.S. Patent No. 4,992,481 to von Bonin *et al.* ("von Bonin") is respectfully traversed.

Romenesko relates to a cross-linked (i.e., cured) thermoplastic silicone product that includes components A-F as described at col. 4, lines 10-22, thereof. Component A is a polyolefin; and component B is a polyorganosiloxane. As described at col. 9, lines 1-42, the components are mixed together and thereafter catalyst (component D) is introduced to induce cross-linking of components B (the polyorganosiloxane) and C (an organohydrido silicon compound). *See also* Romenesko at col. 7, line 66 to col. 8, line 2. As noted by the U.S. Patent and Trademark Office ("PTO") at page 3 of the office action, Romenesko make no provision for including inorganic phosphate. The PTO cites von Bonin at page 4 of the office action as overcoming this deficiency. Applicants respectfully disagree for several reasons.

Firstly, one of ordinary skill in the art would have had no rational basis for combining the teachings of Romenesko and von Bonin, because the two references teach and describe two very different products. Aside from their use as fire retardant materials, the fundamental chemistry and materials utilized by Romenesko and von Bonin are very different. As such, one of ordinary skill in the art would have had no basis to combine the teachings of these references.

As explained above, Romenesko relates to a thermoplastic composition of polyorganosiloxane dispersed in polyolefin which is cured by cross-linking after mixing (with a cross-linking agent and a catalyst). In sharp contrast, von Bonin teaches molded foams, in particular polyurethane foams, which, whether whole or ground into pieces, are impregnated with an aqueous fire retardant and remain elastic or pliable while in the moist state.

Because the chemistry relied upon by Romenesko and von Bonin are so very different, and the fire retardant products prepared according to Romenesko and von Bonin are so very different, one of ordinary skill in the art would have had no motivation to combine any one component of the von Bonin impregnation solutions with the Romenesko cross-linkable formulation.

Secondly, the PTO at page 4 of the office action alleges that the motivation for combining the use of inorganic phosphate as taught by von Bonin is "because [von Bonin] teaches utilizing inorganic phosphate in an fire resistant composition that can be used as a cable

insulation will provide superior adhesion properties and impermeability to smoke." The PTO cites to von Bonin at col. 3, lines 1-7 and 25-30 as support for this assertion; however, the cited passages of von Bonin do *not* provide any support for the assertion that the inorganic phosphate is responsible for these properties. Indeed, Example 2 of von Bonin does not describe the use of inorganic phosphate in the impregnated foam, but recites that the material "…fitted very closely and sealed the joint"; "the joint filling was hard and impermeable to smoke"; and "[o]n flame treatment, slight intumescence foaming occurred, but no combustion and smoke was observed." Thus, the mere fact that von Bonin recites phosphates of ammonia as a suitable "inorganic binder" for use in its impregnation solutions does not suggest that these phosphates would have any utility at all in the very different formulation of Romenesko.

Quite the contrary, von Bonin teaches that the "moist binder which is present in the impregnation and which can be the only component of the impregnation provides the impregnation with the ability to penetrate into the foam moulding and with pliability at room temperature…." Col. 5, lines 27-33. Thus, according to von Bonin, it is binders such as the inorganic phosphate that serve the purpose of ensuring impregnation of the foam and pliability thereof while moistened with the aqueous impregnation solution. Because Romenesko does not at all utilize pre-existing foam materials which are to be impregnated with aqueous solutions, Romenesko would have no need to ensure impregnation thereof or pliability thereof. Therefore, one of ordinary skill in the art would have had absolutely no motivation to introduce the inorganic phosphates into the cross-linked thermoplastic silicone product thereof.

Thirdly, even if the combination of Romenesko and von Bonin is proper, which applicants do not admit, then the combination of these references fails to teach a composition that is essentially free of charring agents which together with said inorganic phosphate provide intumescence. Given this deficiency, the rejection of claim 1 and its dependencies is likewise improper.

For all these reasons, one of ordinary skill in the art would not have had any reason to modify the teachings of Romenesko to arrive at the claimed subject matter of claims 1 or 3, or any of claims 5-18, 27-29, and 33-37 dependent thereon. Therefore, the rejection of these claims over the combination of Romenesko and von Bonin is improper and should be withdrawn.

The rejection of claims 19-26 under 35 U.S.C. § 103(a) for obviousness over Romenesko and von Bonin further in view of U.S. Application Publ. No. 2004/0216914 to Vexler *et al.* ("Vexler") is respectfully traversed.

At pages 5-6 of the office action, the PTO asserts that one of ordinary skill in the art would have been motivated to prepare cables of the type taught by Vexler using a composition as taught by the combination of Romenesko and von Bonin to arrive at the cables recited in claims 19-26. Applicants respectfully disagree, because given the above-noted deficiencies of Romenesko and the reasons why one of ordinary skill in the art would not have combined the teachings of Romenesko and von Bonin, one of ordinary skill in the art would have lacked any motivation to arrive at the claimed cables recited in claims 19-26. The PTO has failed to explain how Vexler overcomes the above-noted deficiencies of Romenesko and von Bonin with respect to claim 1. Because claims 19-26 depend from claim 1, the rejection of these claims over the combination of Romenesko, von Bonin, and Vexler is improper and should be withdrawn.

In view of all of the foregoing, applicants submit that this case is in condition for allowance and such allowance is earnestly solicited.

Respectfully submitted,

Date: May 24, 2010

/Edwin V. Merkel/
Edwin V. Merkel
Registration No. 40,087

NIXON PEABODY LLP
1100 Clinton Square
Rochester, New York 14604
Telephone: (585) 263-1128
Facsimile: (585) 263-1600